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waycare

Richer Data Keeps
Traffic Flowing and
Reduces Crashes

CHALLENGE

When it comes to keeping roadways safe and traffic flowing, municipalities can tap into more data than ever. In addition to traditional infrastructure such as road sensors and CCTV cameras, there are billions of data points coming from mobility apps, devices, and connected cars. Waycare offers municipalities a platform that helps them capitalize on all of this new data. Its machine learning algorithms drive predictive recommendations that improve traffic flows in urban areas, predict traffic "hot spots" as much as two hours ahead of time, accelerate emergency responses, and facilitate smarter traffic engineering.

"Unlike road sensors, which require a continuous investment in maintenance and upgrades, connected car data is a much more effective resource that updates seamlessly," says Shai Suzan, Chief Information Officer at Waycare. "This data can map an entire city very efficiently."

Waycare's machine learning models leverage real-time and historical data to make predictions about what will happen at a particular moment in time. The company works with multiple data providers, including mobility apps and telematics partners, to get as much coverage as possible in the geographic areas it serves. "In an ideal world, there would be one source for all of the data we need," Suzan remarks. "However, that source doesn't exist today."

PROFILE

Waycare is shaping the future of urban mobility, enabling cities to take full control of their roads by harnessing in-vehicle information and municipal traffic data for predictive insights and proactive traffic management optimization.

HIGHLIGHTS

- Incorporated anonymous automotive data, both real-time and historical, into predictive models
- Generated richer recommendations with minimal incremental development effort, building on Waycare's ability to reduce crashes by up to 17% and identify accidents faster
- Improved ability to scale to new geographies and expand algorithms

USE CASES

Traffic Management
Law Enforcement & Emergency Services
Roadway & Safety Monitoring

AUTOMOTIVE DATA TYPES

Anonymous
Real-time, historical

AUTOMOTIVE DATA PARAMETERS USED

Vehicle speed
Vehicle location

CLOUD PLATFORM

Cloud-agnostic

"…connected car data is a much more effective resource that updates seamlessly."

SHAI SUZAN   CHIEF INFORMATION OFFICER, WAYCARE

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WHY OTONOMO?

Working with Otonomo, Waycare found a partner with an attractive value proposition: bringing together enhanced data from multiple automotive OEMs. "For us as a service provider, fewer technical integrations with data sources reduces the complexity of setting up and maintaining our service," Suzan comments. "More importantly, Otonomo and Waycare share a vision that in the future, most mobility data will come from vehicles rather than infrastructure. Together, we are educating the market about the value of connected car data while sharing the results we have achieved so far."

"The process is much simpler than with traditional data suppliers."

SHAI SUZAN
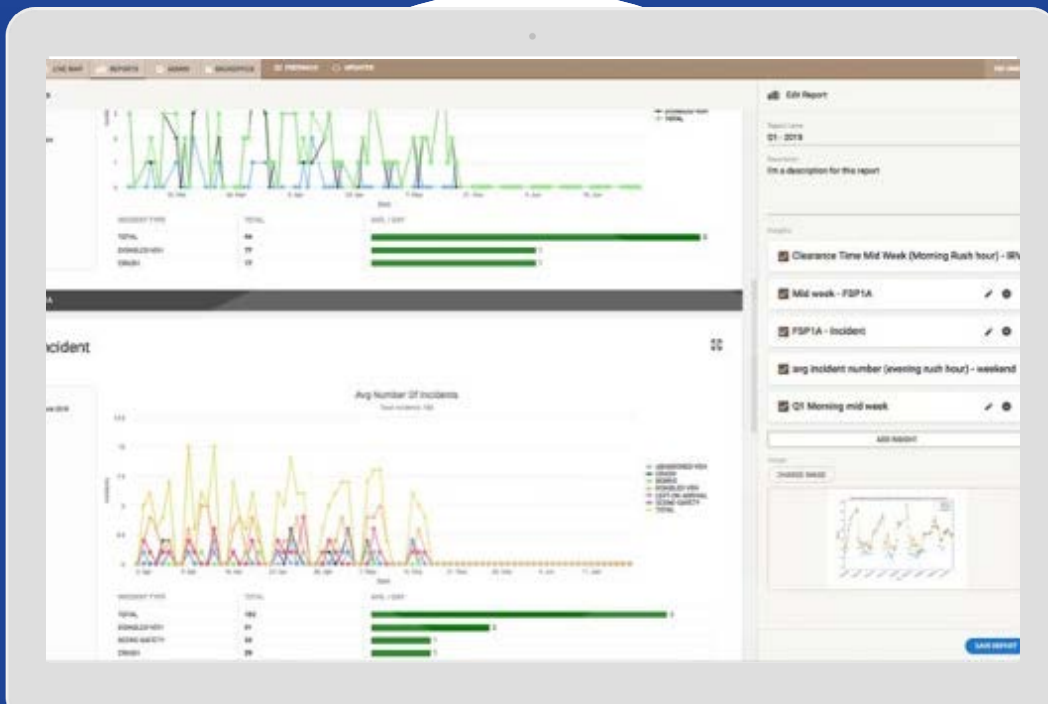
AI-driven analytics and insights empower data-driven decisions

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"Together with municipal agencies, we are leveraging the real-time data being generated by vehicles to make an impact, reducing congestion, preventing accidents, decreasing emissions, and saving lives. Our partnership with Otonomo enables us to provide a solution that helps drivers today, and not in a few years when every technical barrier has been addressed."

SHAI SUZAN
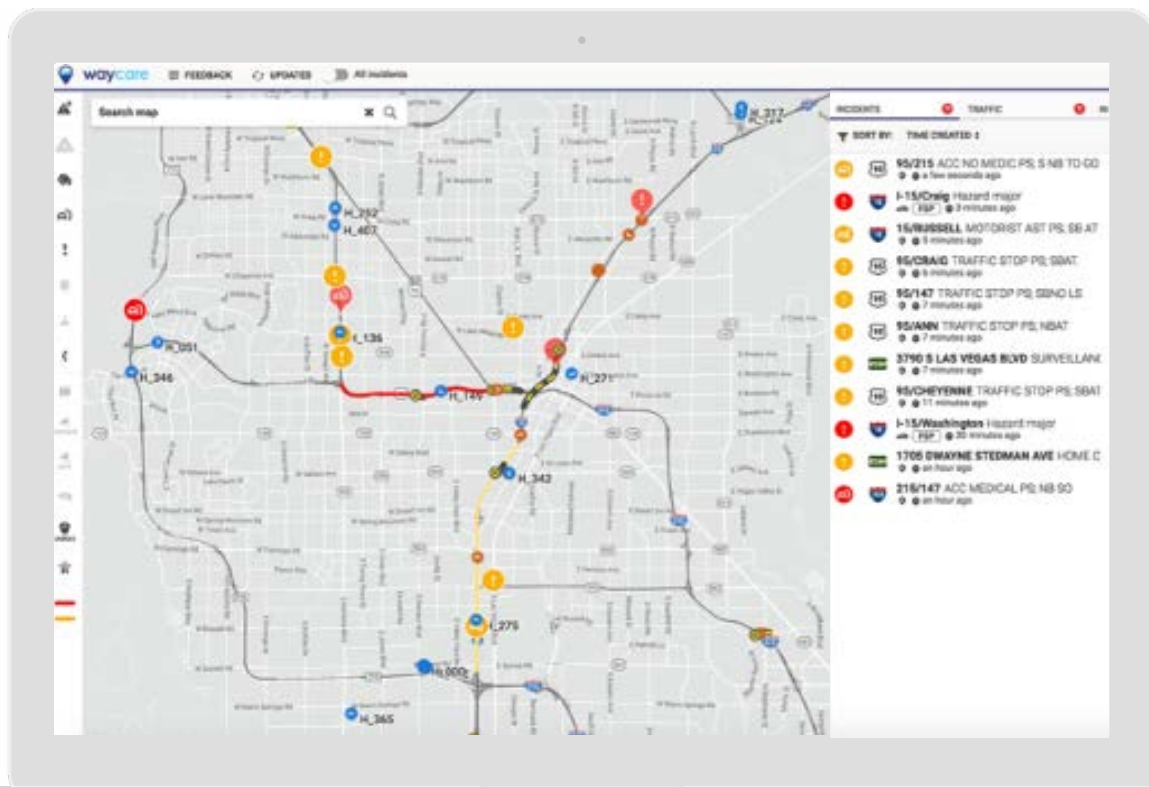
Waycare GIS-based interface for traffic management center operations

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SOLUTION

Today, Waycare's algorithms get speed and location data directly from connected cars. This data is anonymized by Otonomo and delivered to the Waycare platform using Otonomo's API. The Waycare platform then turns automotive data into real-time insights such as aggregate traffic flows and safety "hot-spots." Waycare's algorithms are able to incorporate data such as hard braking, crash indicators, safety events, weather, and road conditions as more data attributes become available from OEMs. Waycare also leverages Otonomo's ability to filter by precise polygons, which are created on a map layer to represent boundaries of closed geographical areas and are appended to the location data specified by Waycare.

It was a very quick process to integrate the data via the Otonomo API. "The Otonomo Platform focuses on integrations," Suzan says. "The process is much simpler than with traditional data suppliers whose solutions aren't necessarily designed for easy data access. Furthermore, the Otonomo team has been very supportive. They really know what they're doing and are eager to help us out."

RESULTS

The partnership with Otonomo has helped Waycare scale more effectively - expanding its geographies served as well as its algorithms - and deliver a higher impact to its end customers. Otonomo's OEM relationships, along with expertise in overcoming the technical, legal, and policy challenges of utilizing automotive data, provide significant business advantages. This includes the data cleansing and normalization required with respect to automotive data, as well as driving collaboration with the OEMs and across the ecosystem. "With automotive data, you must understand the use cases and know the limitations of your datasets," Suzan explains. "Thinking that 'data is just data' is not enough. Otonomo understands how to use automotive data and has helped us to get value today rather than having to wait until every issue in the ecosystem is solved."

The Waycare platform has brought significant benefits to its customers. For example, the Nevada Highway Patrol ran a pilot program that saw a 17 percent reduction in crashes along a portion of northbound Interstate 15 near Las Vegas, Nevada, with accidents identified up to 12 minutes faster. Extrapolating these types of results to more cities would result in billions of dollars of economic advantages as well as lives saved.

"With Otonomo, we're able to provide municipalities richer recommendations that tap into more data, with the same amount of effort on our part," Suzan concludes. "This results in better traffic management and faster incident resolution."

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ABOUT OTONOMO

The Otonomo Automotive Data Services Platform fuels a network of 15 OEMs and more than 100 service providers. Our neutral platform securely ingests more than 2 billion data points per day from over 18 million global connected vehicles, then reshapes and enriches it, to accelerate time to market for new services that delight drivers. Privacy by design is at the core of our platform, which enables GDPR and other privacy-regulation-compliant solutions using both personal and aggregate data. Use cases include emergency services, mapping, EV management, subscription-based fueling, parking, predictive maintenance, usage-based insurance, media measurement, in-vehicle package delivery, and dozens of smart city services. With an R&D center in, Israel, and a presence in the United States, Europe, and Japan, Otonomo's investors include Bessemer Venture Partners, Aptiv, Dell Captial, Hearst Ventures, StageOne Ventures, and Maniv Mobility.